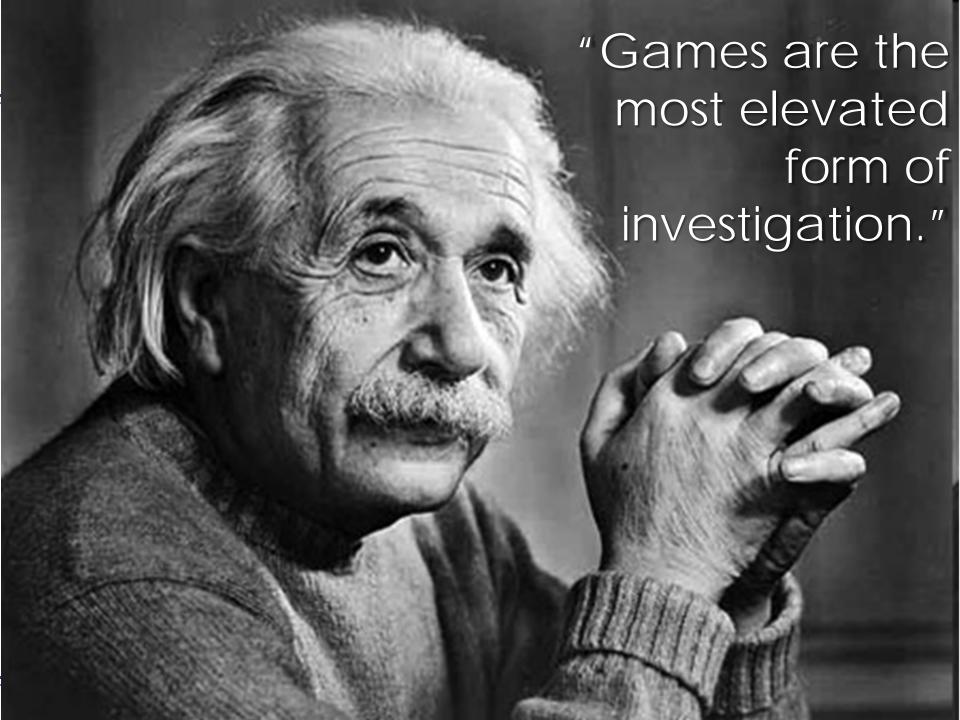
Fostering innovation in the classroom

Game based learning



- Games are a form of fun. That gives us enjoyment and pleasure.
- Games are form of play. That gives us intense and passionate involvement.
- Games have rules. That gives us structure.
- Games have goals. That gives us motivation.
- Games are interactive. That gives us doing.
- Games are adaptive. That gives us flow.
- Games have outcomes and feedback. That gives us learning.
- Games have win states. That gives us ego gratification.
- Games have conflict/competition/challenge/opposition. That gives us adrenaline.
- Games have problem solving. That sparks our creativity.
- Games have interaction. That gives us social groups.
- Games have representation and story. That gives us emotion

Marc Prensky



'A Collaborative Learning Platform Using Game-like Enhancements'

supported by the **eLearning** initiative of the European Commission

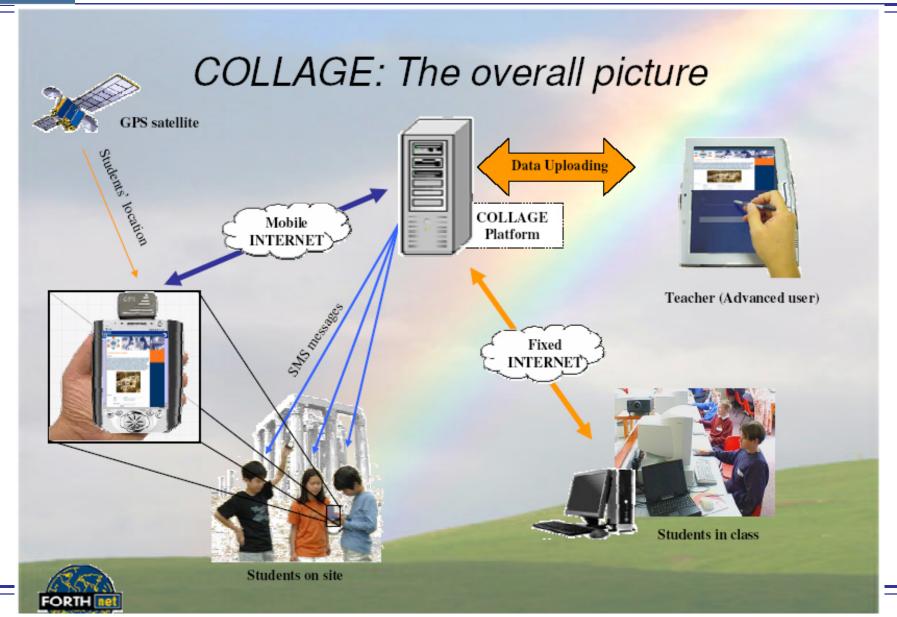
The Collage Project

development of a new 'everywhere-learning' and 'lifelong-learning' culture among secondary school students, who realise that the walls of their classroom do not exist as a barrier between school activities and everyday life, and that learning is related to life in general rather only to schooling

The integration of learning into everyday activities is promoted and reinforced by mobile technology.



The use of **mobile devices** with Internet access facilitates **in-situ learning** and maximize the impact of information that is provided when the motivation of the learner is highest.







Twinning learners in arts and humanities through game playing over a mobile learning platform

A visit to an archeological site as a board game

c2learn



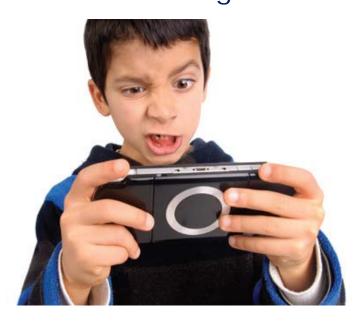
'Creative Emotional Reasoning Computational'
Tools Fostering Co-Creativity in Learning
Processes







investigating ways in which our current understanding of creativity in education and creative thinking, on the one hand, and technology- enhanced learning tools and digital games, on the other hand, can be fruitfully combined to provide young learners and their teachers with opportunities for creative learning

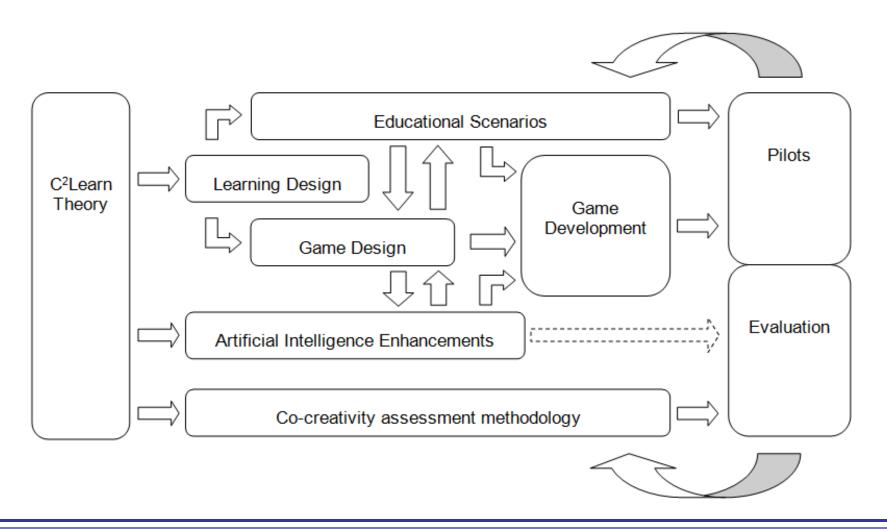






- An innovative digital gaming and social networking environment incorporating diverse computational tools, the use of which can foster co-creativity in learning processes in the context of both formal and informal educational settings.
- C²Learn computational tools will provide the conceptual, diagrammatic, and emotive vehicles to engage learners in creative thought and cooperation.

The flow of things in C²Learn



One of the drivers for C²Learn's co-creativity is for gameplayers to be asking 'what if' and 'as if' questions:

- what if I choose to explore this part of the game over another...?
- what if I use this tool to help me solve a challenge...?
- how can I imagine this as if I were...?
- what happens if I collaborate with that player as if I...?





C²Space

C²Space A playful space affording... The C²Learn digital environment: gameful social networking socializing... 'Play' C²Quests Engagement opportunities C²Explorations 'Play' or 'Game' ...around playful Free exploration C²Games C²Fun C²Assistants C²Experiences... 'Play' Other playful Creativity Games activities **Assistants** 'Game' 'Play' 'Play' C²Assistants ...which may be enhanced through the Creativity Assistants use of... 'Play'

Figure 2: Architecture of digitally enabled playfulness in C²Learn

The 4 Ps

- pluralities: opportunities for players to experiment with many different places, activities, personal identities, and people
- possibilities: opportunities for possibility thinking, transitioning from what is to what might be, in open possibility spaces
- participation: opportunities for players to take action, make themselves visible on their own terms, and act as agents of change
- playfulness: opportunities for players to learn, create and selfcreate in their emotionally rich, virtual and actual play-worlds

 generate, explore and see how new ideas can have a valuable impact on their community, leaving aside ideas that do not relate to what matters to them (attending to ethics

and impact);



 ask questions, debate between new ideas, find ways to negotiate conflict or to go in a different direction to fellow players if conflict is not resolved

(engaging in dialogue);



• take charge of different parts of the creative process, making decisions and understanding their consequences within the rules of the game, as well as taking actions through scenarios and perhaps

quests (be in control);

• be immersed in the game and its environment, and possibly addicted to gameplay and the interactive drama played out in the game-world and in real-world spaces. This might lead to gameplayers taking risks and coming up with surprising individual or shared ideas (engaged action); and



have their thinking and action disrupted by the game's computational tools embedded within which are CER non-linear thinking techniques. This will move them away from established routines and patterns (intervention resulting in reframing).







zygouritsas@ea.gr